

THE CHOICE OF ELECTIVE CESAREAN DELIVERY IN OBSTETRICS: HOW DOES THE RISK OF PELVIC FLOOR INJURY INFLUENCE CLINICAL DECISION-MAKING?

Hypothesis / aims of study

There is a growing body of evidence in the medical literature implicating parturition with pelvic floor injury and its sequelae. There are those who believe that vaginal birth, particularly forceps assisted vaginal birth, is associated with significant injury to the pelvic floor - arguing that this injury is sufficient to warrant informed consent for vaginal delivery and the opportunity to choose elective cesarean. Alternatively, others believe that the evidence for the protective effects of cesarean delivery is inadequate and that the operative risks associated are significant. The purpose of this study was to survey health care professionals about their willingness to offer elective cesarean delivery and to evaluate how their knowledge of obstetric related pelvic floor injury influences their practice.

Study design, materials and methods

An author-compiled questionnaire was administered to health care professionals. The first part of the questionnaire addressed the issue of the effect of various modes of delivery on bladder and bowel continence. The questions were answered on a five-point Likert scale with a response format ranging from 'never' to 'always'. Part two of the questionnaire presented various clinical scenarios to participants and asked them to indicate the mode of delivery they would recommend. In the first scenario six patients with different obstetrical histories request elective cesarean delivery. The participants were asked to indicate whether they would offer elective cesarean or a trial of vaginal birth for each of these patients. In the second scenario participants were asked to indicate how they would manage the same six women at a point in their labors where it was necessary to choose between a trial of forceps or cesarean delivery. Possible confounding demographic factors which were considered in the analysis were: sex, age, basic medical training and subspecialty training, type of practice (private or academic), geographic location of practice, population size served by their obstetric hospital, number of deliveries performed per annum in their hospital and number of deliveries performed by the participant. Personal parity and modes of delivery were also examined. Chi square or Fischer's exact tests were used to assess the effect of the demographic variables upon health professionals' willingness to offer elective cesarean delivery. Correlations between beliefs in obstetrical risks for pelvic floor injury and willingness to offer elective cesarean were examined with Pearson's correlation coefficients.

Results

One hundred and sixty-two questionnaires were completed. One hundred respondents were female (62%). Twenty-three percent (37/162) of respondents approved elective cesarean delivery after informed request in nulliparous women without an obstetrical indication. Males were more likely than females to perform cesarean delivery in these circumstances (34% versus 16% - OR 2.7, CI 1.2, 6.0). When questioned about the impact of mode of delivery on bladder and bowel continence, the numbers of respondents who answered "usually" or "always has a detrimental effect" were: vaginal birth - 16%; forceps - 20%; and cesarean delivery reduces bladder and bowel problems - 44%. Males were more likely to emphasize a protective effect of cesarean delivery (55% versus 38%; OR 1.9, CI 1.0, 4.0). Health care professionals would opt for cesarean delivery for themselves when forceps was the alternative more often than they would offer cesarean delivery to their patients (OR 1.98, CI 1.1, 3.5). There was a low correlation between the willingness to offer elective cesarean and the belief that vaginal birth ($r = 0.16$) or forceps assisted vaginal birth ($r = 0.23$) have detrimental effects on bowel and bladder continence.

Interpretation of results

We found the majority of respondents believed that both spontaneous vaginal birth and forceps delivery can have detrimental effects on bladder and bowel continence and that cesarean delivery has a protective effect. This finding indicates that there is a widespread recognition and acceptance of the body of literature implicating childbirth with pelvic floor injury. The low correlation between this recognition and a willingness to offer elective cesarean suggests that this knowledge does not influence obstetric practice. Concerns about the risks associated with cesarean delivery appear to overshadow concerns about the potential for pelvic floor injury associated with spontaneous or forceps assisted vaginal birth.

Concluding message

While the body of evidence implicating vaginal birth with urinary and anal incontinence is substantial, it is not consistent. Factors other than vaginal birth are clearly implicated in urinary and anal incontinence and this evidence causes clinicians to question the long-term protective effects of cesarean delivery. Perioperative complications associated with intrapartum cesarean delivery are much higher than those associated with elective cesarean. However, the implications of cesarean delivery for subsequent pregnancies (uterine rupture, placenta previa and placenta previa accreta) must also be considered.

FUNDING: Atlee Foundation